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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/322,108

05/28/1999

YUTAKA IKEDA

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03/12/2004

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EXAMINER

BELLO, AGUSTIN

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/322,108

Applicant(s)

IKEDA ET AL.

Examiner

Agustin Bello

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,4,7,9-16,20 and 22-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3, 4, 7, 9-16, 20, 22-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 3, 4, 7, 9-16, 20, 22-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 7, the applicant recites that a reception light intensity of a second station is extracted. However, it is not clear where this extraction is taking place as there is no reference or description of a primary station receiving such information, if that is even the case. Whether the claim is describing what is happening in the primary station or the secondary station is completely vague and difficult to determined from the claim language. Furthermore, the applicant's description of, "a different range of reception light intensities," fails to provide any context whatsoever as to whether these ranges are at the primary station or the secondary station.

Regarding claims 9, 10, 11 it is not clear whether the claim is describing what is happening in the primary station, the secondary station, or which station is transmitting to which other station. Furthermore, the applicant's recitation of a coding circuit that generates reception intensity information is wholly inconsistent with the accepted function of a coding circuit. This issue is further complicated by the applicant's recitation that the coding circuit first generates the reception light intensity information, codes it along with data (whether or not it is combined with the data is indeterminate), but then later claims that the coding circuit encodes the reception light intensity information. Is this information encoded twice before being transmitted? Furthermore,

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it is not clear if the applicant is trying to control the power at which the primary station transmits by transmitting reception light intensity information or whether the applicant is controlling the transmission intensity of the secondary station. The newly added limitation is wholly vague. For example, the applicant recites, "the reception light intensity information being generated is one of a plurality of different light emission intensities values." It is not at all clear whether the reception light intensity information is transmitted at a specific light intensity or whether the reception light intensity information represents a light emission intensity value produced by the primary station and now described by the reception intensity information. The introduction of ranges of light intensities at the primary station only adds to the problems of the claim language for this claim.

Further regarding claim 11, the applicant's recitation of, "light emission intensity information requested to the second station," is very confusing since it is hard to determine if the primary station is generating a light a certain intensity or if the secondary station is generating light at a certain intensity.

Regarding claim 13, the claim fails to state that the signals are converted to light at the light intensity requested and extracted. The applicant's use of terms such as "requested to" and "a secondary station request light emission intensity control signal generation circuit " is completely vague and complicates the determination of which station is requesting what.

Regarding claim 15, the newly added limitation conflicts with a previously recited limitation in that the previously recited limitation recites that the intensity of the primary station is determined based on a plurality of parameters while the new limitation bases the intensity of the primary station only on the reception intensity. Furthermore, it is not at all clear that the light

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intensity information controls intensity of the transmitter since it is coded prior to being converted. How does the transmitter handle the coded information in order to determine the intensity at which to transmit?

Regarding claim 20, the applicant uses confusing and vague language especially in the newly added limitation. For example, first the applicant claims that the light emission intensity is requested from a secondary station is extracted, but then goes on to claim that light emission intensity information is generated "to the secondary station." This makes it impossible to determine which stations are requesting what from what other stations.

Regarding claims 24, 26, 28, 29, and 30, it is difficult to determine whether the claim is intended to describe a primary station or a secondary station.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. The claim language makes it very difficult to determine structural relationships between the various elements in the stations and how those elements interact with other elements of other stations. Many of the claims fail to provide claim language that gives a definite idea of what is happening between stations in the system (e.g. primary talking to secondary station/secondary talking to primary).

2. Claims 3, 4, 7, 9-16, 20, 22-32 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: a determining means within the transmission circuit for determining which emission intensity to use based on the results from the reception light intensity level judgment circuit and the judgment by the decoding circuit.

Although it is clear that the transmission circuit transmits an optical signal with a light intensity

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based on normal decoding and reception light intensity, it is not at all clear how or by what means the transmission circuit takes into account the reception light intensity level judgment and the decoding judgment to then determine the light emission intensity. Furthermore, the fact that the transmission circuit must determine whether or not to refer to the intensity level judgment based on whether or not decoding was correctly completed underscores the need for a description in the claim of the element or logic that makes this determination. Moreover, the fact that there are a plurality of different light emission intensities to choose from based upon the intensity of the received signal when decoding is normal begs the question, "Where is the description of the element that chooses between the transmission intensities based on the normal decoding and the range into which the judged intensity falls?" and "Where and by what means is the range determined for the received signal intensity?" Simply reciting an optical transmission circuit leads to a gap between the judgments made, how and by what means these judgments are handled, how and by what means the intensity is determined, and the optical transmission of the signal at the determined intensity. Furthermore, in claim 7, the omitted elements are: a determining means within the transmission circuit for determining which emission intensity to use based on the extracted reception light intensity. This claim suffers from many of the same deficiencies as claims 3 and 4. Furthermore, a means for handling the extracted light reception intensities and a means for evaluating the range into which they fall is not provided resulting in a gap in the description of the claimed invention.

3. Further, in claims 3, 4, 7, 9-16, 20, 22-32, the omitted elements are means for selecting one of a plurality of light emission intensities, determining means, means for determining ranges, etc.

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4. Based on the 112 problems, it was difficult for the examiner to ascertain exactly what the applicant feels is his invention. Because the confusion caused by the 112 problems, the examiner is unable to provide an art rejection at this time. Clarification of the claim language towards a single clearly defined invention is encouraged.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (703)308-1393. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703)305-4729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB


LESLIE PASCAL
PRIMARY EXAMINER